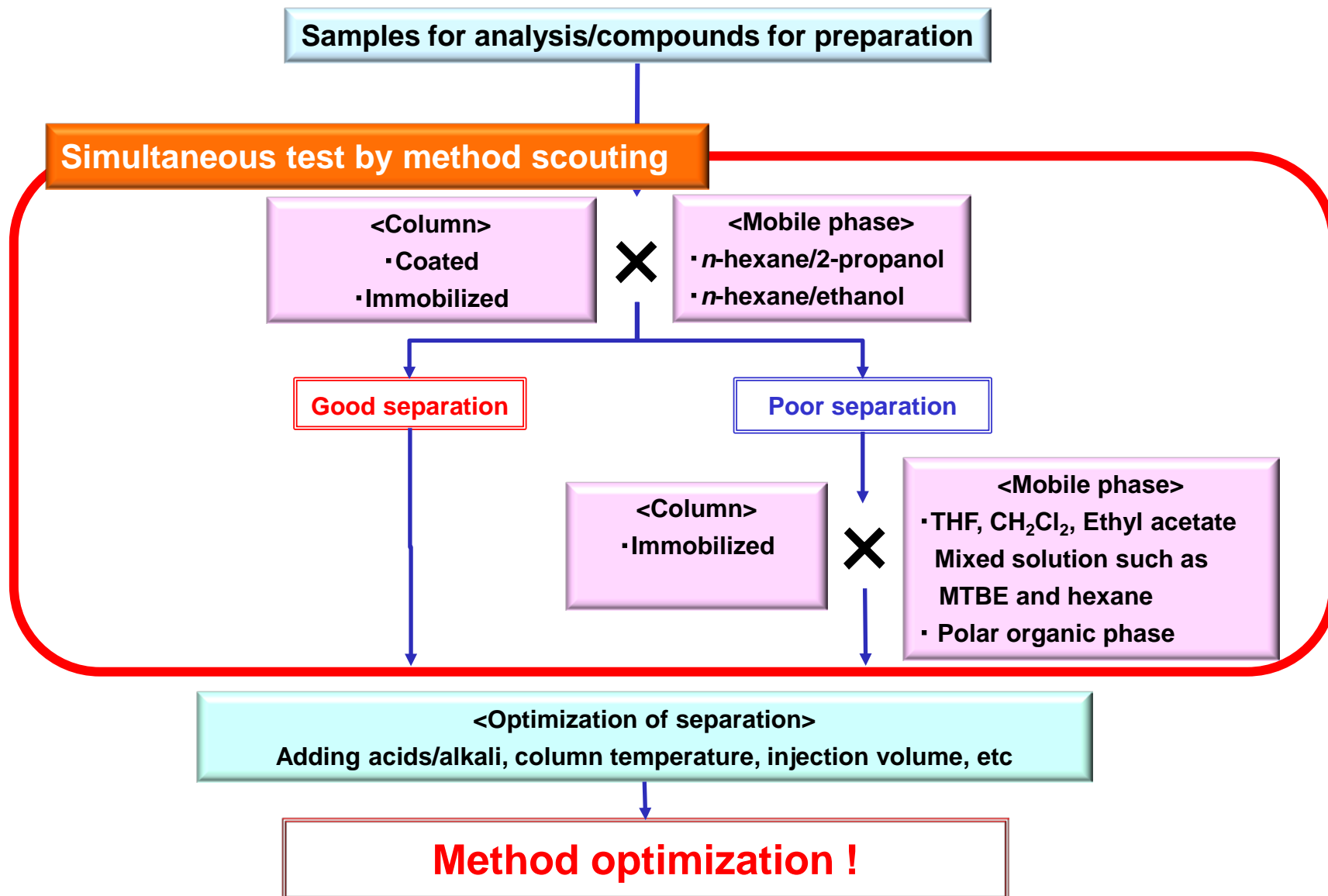


Method scouting for CHIRAL ART columns



Normal phase

<Column>

CHIRAL ART 3 μ m

75 X 3.0 mm I.D.

- ① Amylose-C
- ② Cellulose-C
- ③ Amylose-SA
- ④ Cellulose-SB
- ⑤ Cellulose-SC
- ⑥ Cellulose-SJ*1

*1 Pacing material size 5 μ m

<Mobile phase>

1st choice

- ① A) *n*-hexane
B) 2-propanol
- ② A) *n*-hexane
B) ethanol

2nd choice

- ③ A) *n*-hexane
B) THF*2
- ④ A) *n*-hexane
B) MTBE*2

Polar organic solvents (methanol, ethanol, acetonitrile, etc.) can be effective for some cases

Gradient elution 10-50%B(0-6 min)

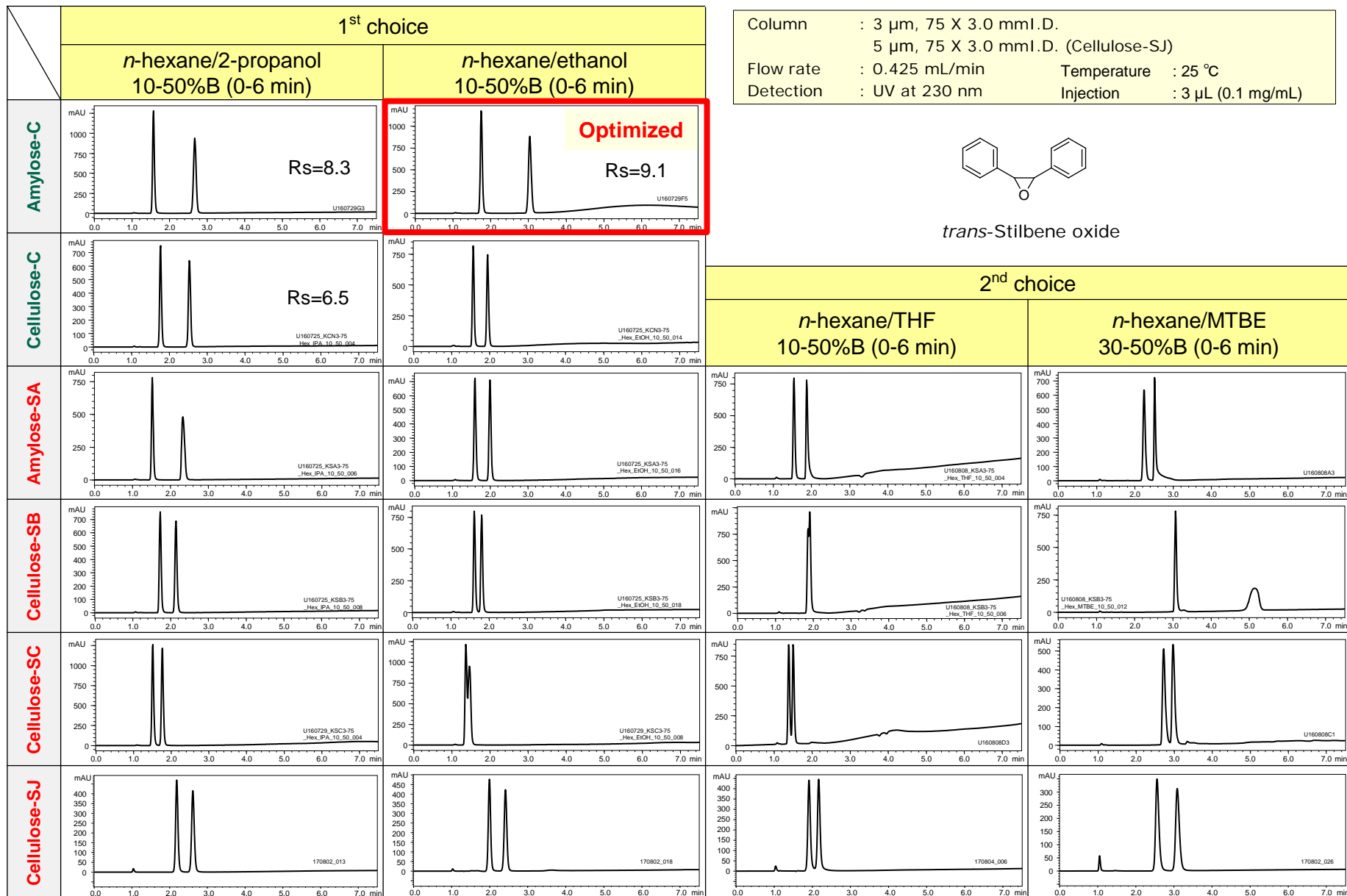
×

<Method optimization>

- Gradient \Rightarrow Isocratic
- Additives for mobile phase
 - Base compounds : Base additives
(DEA, ethanolamine, etc.)
 - Acidic compounds : Acidic additives
(TFA, Formic acid, etc.)
- Flow rate ● Column temperature
- Injection volume, etc.

*2 Applicable only for immobilized columns

Normal phase HPLC scouting example

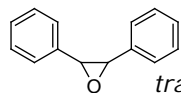
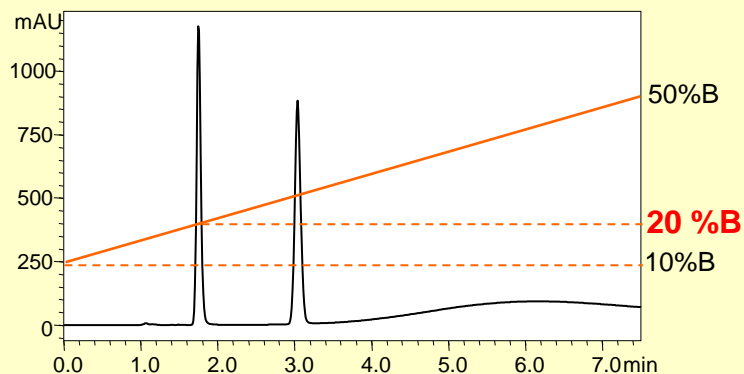


Normal phase HPLC scouting example

Method optimization

Scouting result

Column : CHIRAL ART Amylose-C
3 μ m, 75 X 3.0 mm I.D.
Eluent : A) *n*-hexane B) ethanol
10-50%B (0-6 min)

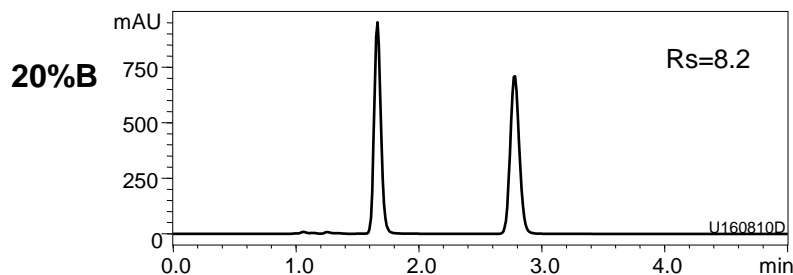
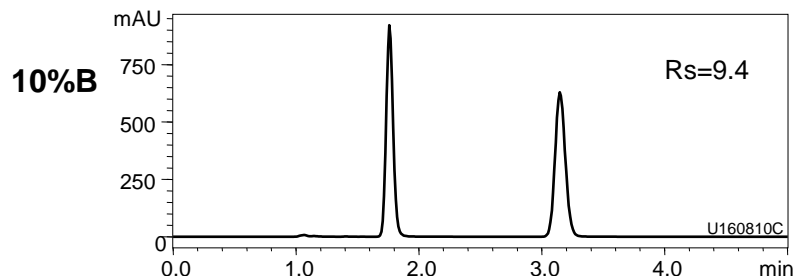


trans-Stilbene oxide

Flow rate : 0.425 mL/min
Detection : UV at 230 nm
Temperature : 25 °C
Injection : 3 μ L (0.1 mg/mL)

【Optimization of isocratic rate】

Reduce the concentration of high polar organic solvent in mobile phase at 10-15% from the rate where the compound was first eluted on gradient test



Shorter analysis time by raising concentration of high polar organic solvent in mobile phase

